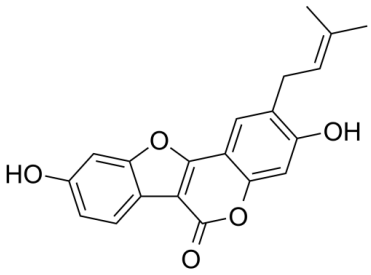
Data Sheet

Product Name:	Psoralidin
Cat. No.:	CS-3757
CAS No.:	18642-23-4
Molecular Formula:	C20H16O5
Molecular Weight:	336.34
Target:	COX; Lipoxygenase; Notch; Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; Neuronal Signaling; NF-κB; Stem Cell/Wnt
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

Psoralidin, isolated from the seed of Psoralea corylifolia, is a dual inhibitor of **COX-2** and **5-LOX**, regulates ionizing radiation (IR)-induced pulmonary inflammation.Anti-cancer, anti-bacterial, and anti-inflammatory properties[1]. Psoralidin significantly downregulates **NOTCH1** signaling. Psoralidin also greatly induces **ROS** generation[2]. **In Vitro:** Three breast cancer cell (BCC)populations ($ALDH^-$ cells, $ALDH^+$ cells, and commercial BSCSs) are sensitive to Psoralidin treatment (10, 15, 20, and 25 μM; 24 hours) with IC_{50}s ranging from 18 to 21 μM; however, the MCF-12A cells were resistant to Psoralidin[2].
Psoralidin (30 μM; 24 hours) results in a significant induction of apoptosis for $ALDH^-$ cells, $ALDH^+$ cells, and commercial BCSCs[2]. Psoralidin treatment also downregulates NOTCH1 expression in both $ALDH^-$ and $ALDH^+$ cells[2]. **In Vivo:** Psoralidin (5 mg/kg) regulates expression of pro-inflammatory cytokines that play an important role in inflammatory diseasesin IR-irradiated lung of BALB/c mouse[1].

References:

[1]. Yang HJ, et al. Psoralidin, a dual inhibitor of COX-2 and 5-LOX, regulates ionizing radiation (IR)-induced pulmonary inflammation.Biochem Pharmacol. 2011 Sep 1;82(5):524-34.

[2]. Suman S, et al. Silencing NOTCH signaling causes growth arrest in both breast cancer stem cells and breast cancer cells.Br J Cancer. 2013 Nov 12;109(10):2587-96.

CAIndexNames:

6H-Benzofuro[3,2-c][1]benzopyran-6-one, 3,9-dihydroxy-2-(3-methyl-2-buten-1-yl)-

SMILES:

O=C1C2=C(OC3=CC(O)=CC=C32)C4=CC(C/C=C(C)\C)=C(O)C=C4O1

Caution: Product has not been fully validated for medical applications. For research use only.

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